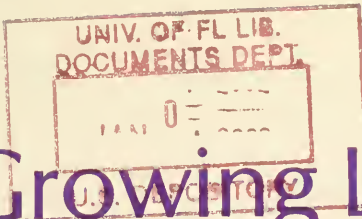


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Growing Lilacs



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Growing LILACS

By Henry M. Cathey, ARS research horticulturist ¹

Lilacs are versatile flowering shrubs, which have a wide range of uses in the home garden. They can serve as border plants with smaller shrubs, as corner plantings, as windscreens, or as flowering hedges. Both plants and flowers are very attractive.

Although lilacs display flowers that are among the most delicate of the ornamentals, the plants are among the most hardy. Some varieties can survive winter temperatures of -60° F. They are therefore suited to all parts of the United States except the South, where winters are too mild to provide the plants with the seasonal rest period they need.

Lilac plants often grow and continue to flower for many years even if totally neglected. Normally, the only care they need is pruning to keep them within bounds.

The plants range from 3 feet to as much as 30 feet in height, depending on the age or type grown. Most, however, remain under 10 feet.

Lilac flowers can be white, violet, blue, true lilac, pink, magenta, purple, or variations of these colors. Depending on where you live, and the lilac varieties you choose, lilacs can provide color and fragrance from April through June.

TYPES OF LILACS

There are many species and kinds of lilacs. Extensive cross-breeding, however, has made these species very much alike. Even botanical experts sometimes find them difficult to identify.

All lilacs belong to the genus *Syringa*. Common to most kinds are unlobed leaves and flowers that grow in clusters. Among the best known are the following:

Common lilac (*Syringa vulgaris*), as the name implies, is the best known of all the lilacs in the United States. This shrub can be as tall as 20 feet, and the flowers are fragrant and usually lilac-colored, although they can be of other hues. Leaves are somewhat heart-shaped and smooth.

Persian lilac (*Syringa persica*) can grow to a height of 10 feet. The fragrant flowers are a pale lilac color and are about half the size of those of the common lilac. The leaves are narrow on drooping branches. This plant makes a good hedge.

Chinese or Rouen lilac (*Syringa chinensis*) is a cross between the Persian and the common lilac. It is somewhat taller than the Persian. The fragrant, lilac-purple flowers are about the same as common lilacs, but appear



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The common lilac, *Syringa vulgaris*.

in greater profusion. The leaves are smaller than those of the common lilac.

Late or Himalayan lilac (*Syringa villosa*) blooms later than other lilacs. It grows to a maximum of about 10 feet and produces fragrant clusters of rose-lilac blossoms. The leaves are pointed and have hairy veins.

Hungarian lilac (*Syringa josikaea*) resembles the late lilac in many ways, but the fragrant flowers are darker, and the leaf veins are smooth, not hairy.

Largeleaf lilac (*Syringa oblata*) is among the very first lilacs to bloom in the spring. It grows to a height of about 12 feet, and has fragrant flowers. Its relatively big, broad leaves are tinged with red when young, and turn red in autumn.

Littleleaf lilac (*Syringa microphylla*) is a round, low, bush-like plant that seldom grows more than 5 feet tall. It produces small, late-blooming, fra-

grant, lilac flowers. Both leaves and flowers of this species are small.

Dwarf Korean lilac (*Syringa palebinina*) is an even shorter bush than the littleleaf lilac and seldom grows more than 4 feet tall. Its lilac flowers are fragrant.

Tree lilacs (*Syringa amurensis*) resemble small trees, and can reach a height of 30 feet. In early summer, tree lilacs produce spectacular clusters of off-white, privet-like blooms. A common variety is the Japanese tree lilac (*Syringa amurensis japonica*), which produces huge clusters of yellow-white flowers late in the season. It grows 25 to 30 feet tall.

Other fairly well-known types of lilacs are: *Syringa pekinensis*, an attractive shrub with long, yellow-white, nonfragrant flowers; *Syringa reflexa*, the "nodding" lilac, so named because its pink flowers hang somewhat limply on the 10- to 12-foot bush; *Syringa prestoniae*, a very hardy species that results from crossing the nodding lilac



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Nodding lilac, *Syringa reflexa*.



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Syringa prestoniae, hardy cross between the nodding lilac and late lilac.

and the late lilac; and *Syringa pubescens*, a 6- to 12-foot shrub with pale flowers that are among the most fragrant of all varieties.

A new, free-flowering lilac, named Cheyenne, will withstand the extra cold temperatures and severe winters of the northern States. Cheyenne grows to a height and spread of about 8 feet, and has dense, symmetrical growth. The highly fragrant flowers are a distinctive and delicate shade of light blue—different from most other lilacs.

When selecting lilacs, keep in mind how you want to use them, and choose varieties accordingly. Your nurseryman can suggest the best types for your particular needs.

PLANTING LILACS

What To Plant

Most commonly, you would buy nursery-grown plants for plantings

around the house and garden. They should be 2- to 4-feet tall, big enough to stand transplanting. You can also buy larger plants that are balled and burlapped.

When To Plant

The best time to plant lilacs is in the fall after the leaves have dropped, but before the ground freezes. You can plant lilacs in the spring before the buds start to unfold. Spring periods are very short, however, and transplanting at this time is recommended only in areas where winters are very severe. Lilacs planted in the fall usually have a better chance to survive, because new roots get a head start in spring before the shrub leafs out.

Where To Plant

Lilacs grow best in an open area that offers good drainage. They need room, and thrive where exposed to sun and wind. A hillside or slope in full sun is ideal. But they will grow in most garden settings.

The ideal soil for growing lilacs is a loam that is not too rich, and that is neutral or slightly alkaline. Yet, lilacs will grow well in all types of soil, except for acid soil. If the soil is low in fertility, mix in cow manure or a fertilizer low in nitrogen and high in phosphate and potash. Bonemeal is a good fertilizer for lilacs, and it contains the lime that can sweeten acid soil.

How To Plant

Dig a hole big enough to accommodate the roots without bending or breaking them. Work a bucket of peat moss and a cup of 5-10-5 fertilizer into the hole. This will promote the development of a good root system and hasten

the establishment of the plant. Mix peat moss and fertilizer with the soil throughout the area. Good soil preparation will aid in producing a good-looking, heavily flowering plant.

Set the plant 2 or 3 inches deeper than it grew in the nursery, and work topsoil in around the roots. Setting the plant deeper can kill it. Pour in water and let it drain away. Then fill in the hole to ground level with more topsoil.

Use a 3-to 4-inch mulch of leaves or hay around the plant in the fall to keep moisture in and to prevent heaving—the alternate freezing and thawing of soil. Heaving can kill the plant. After the soil settles, the level around the plant should be even with the surrounding soil. Allow 6 feet or more between most lilac plantings.

CARING FOR LILACS

Lilacs require a minimum of care. They seldom need supplemental water—only in conditions of drought. If weeds grow around the plant, pull them out by hand; then apply mulch. Do not cultivate around the base of the plant.

Do not overprune lilacs. Let the plant develop several branches from the base, instead of only one or two. This allows you to remove stems that have grown too tall, or have been attacked by diseases or insects, and still have flowering wood.

Pruning is unnecessary for the first 3 or 4 years. Thereafter, limit pruning to the removal of weaker wood from the center of the bush. This prevents a thicket from developing. You should do this soon after flowers have fallen.

Do not prune in late summer, fall, or winter; late pruning often results in removal of flower buds.

Old bushes with runaway growth will

need severe pruning. In such cases, remove about a third of the height of the plant each year for 3 years, until the old wood has been cut to about level. (See illustrations on pages 6 and 7.)

Remove dead flowers soon after they wither. This helps insure vigorous growth for the rest of the season and abundant blooming the following year.

PROPAGATING LILACS

Lilacs can be propagated from root sprouts, by layering, by cuttings, and by cleft and bud grafts. Each method has its advantages and disadvantages in time and degree of difficulty. The easiest methods for the home gardener are root sprouts and layering, using a named variety.

Growing lilacs from seed is not recommended. Because most lilacs are hybrids, plants grown from seed will not produce plants just like the parent plant. Few seedlings are worthy of a place in the home garden.

Root Sprouts

Root sprouts provide the simplest and most usual way of propagating the common lilac. Some lilacs send out suckers near the base of the plant. Dig up these new sprouts in the fall and transplant them elsewhere in the garden or in a nursery. They often develop into satisfactory plants in about 3 years. This method, however, will not be satisfactory for grafted plants, because the suckers will not be like the tops of the plants. Look for a graft union near the soil line to determine if a plant is grafted.

Layering

Layering is an easy, but slow process for increasing lilac plants in the home

garden. The new plants are identical to the parent, even if the parent plant was grafted. It is a satisfactory method of propagation for the home gardener with limited equipment and time. Layering is most successful in spring or late summer, since cool weather is an aid to rooting.

Start layering by working peat or leafmold and sand into the soil where the branch is to be layered. Next, make a slanting 2-inch cut on the upper side of the branch about a foot from the tip. Dust rooting stimulant on the cut. Bend the branch down, and fasten it to the ground at a point between the trunk and the wound. Use a wooden peg or wire wicket, or simply weigh it down securely with a stone. Bend the tip upright at the wound, and as you do, twist the tip a half-turn to open it. Then place another peg or pin over the branch at the point of the wound, and mound 3 or 4 inches of firmly packed soil over the wound. Place straw or leaf mulch on the mound, and water frequently.

If you layer in the spring, the branch should develop roots by the following spring. If you layer in the fall, roots will develop by the second spring. When roots have developed, you can cut the new plant free from the parent. Leave the new plant in place for 3 weeks to recover from the shock of being cut. Then transplant it to a nursery bed and tend it for a year or more.

To prevent water loss that can kill the new rooted layers, prune one-third of their original length from all side branches of these rooted layers as soon as you plant them in the nursery bed. As a further measure to prevent water loss, screen the new plants to shade them from the sun. A makeshift screen

will do—burlap or other porous material on a simple wood frame, for example. You can remove the screen after the first winter. By then, plants should be strong enough to transplant from the nursery to their permanent locations.

Cuttings, Cleft And Bud Grafts

Cuttings, cleft grafts, and bud grafts are still other methods of propagating lilacs. You can root lilac cuttings from suckers at the base of an older plant for use as understock. Cuttings from terminal growth of new wood can be grafted onto these. This method produces high-quality plants. The process requires a great deal of knowledge, however, and takes several months in a greenhouse or glass-covered frame, where the air can be kept moist continuously. Cleft grafting is the most common way of propagating the named varieties of lilacs on a commercial basis. And bud grafting is an especially economical and a very rapid method if you want to grow many new plants.

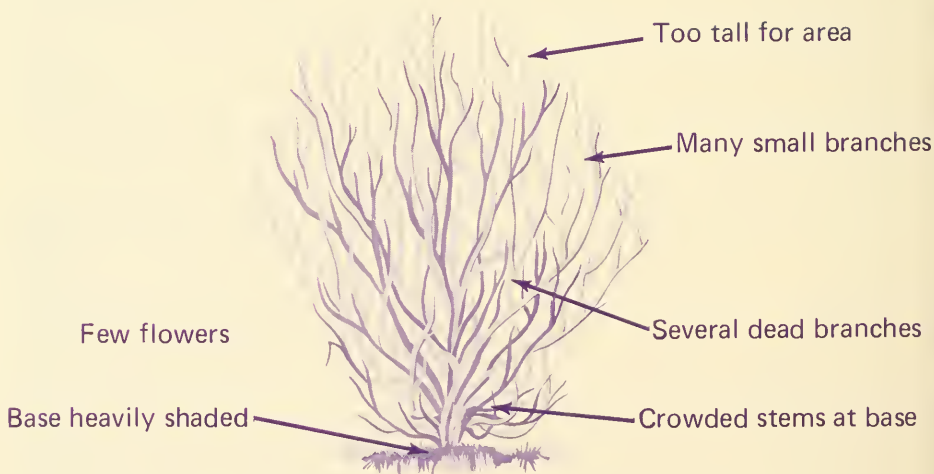
The techniques for propagating by cuttings and by cleft or bud grafting are detailed in *Home and Garden Bulletin No. 80*, "Home Propagation of Ornamental Trees and Shrubs". You can obtain a copy from the Office of Communication, U.S. Department of Agriculture, Washington, D.C. 20250. The information applies generally to many woody plants, including lilacs. Be sure to include your return address and ZIP code number when ordering.

PESTS

A number of insects and diseases attack lilacs, but only a few cause serious injury.

Pruning Lilacs

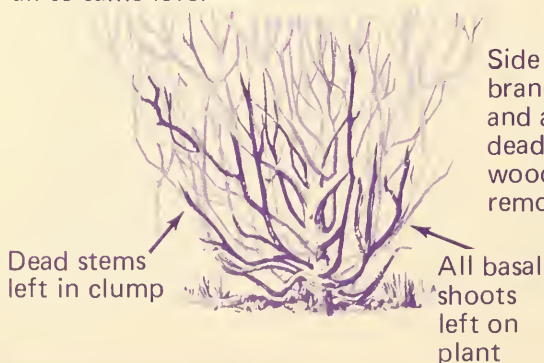
OLD OVERGROWN PLANT



WRONG

Stems trimmed
all to same level

Pruned when
in growth



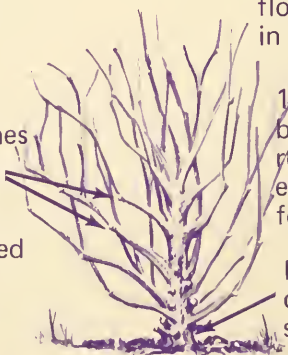
RIGHT

Pruned
just after
flowering
in Spring

Side
branches
and all
dead
wood
removed

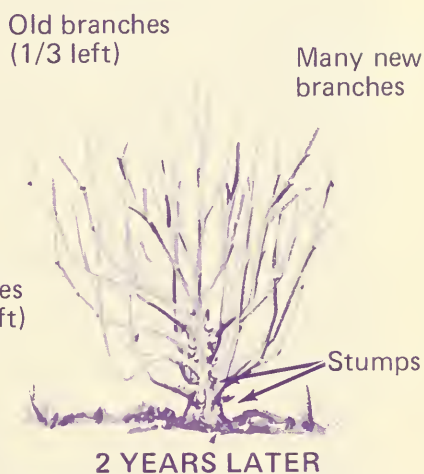
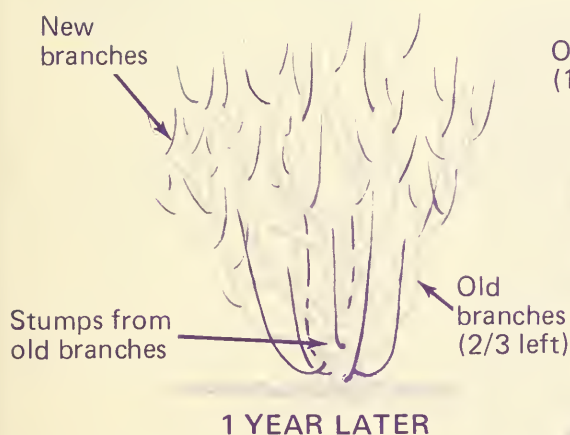
1/3 of tall
branches
removed
each year
for 3 years

Branches
cut off at
soil line



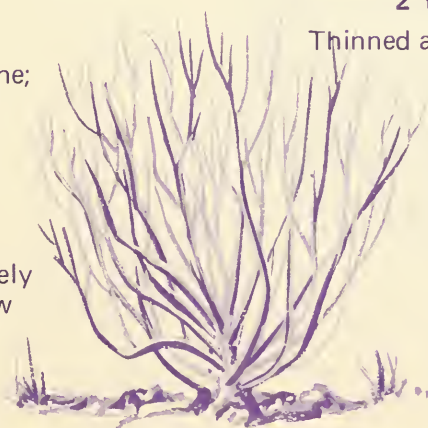
THREE-YEAR PLAN

Remove 1/3 Of Tall Branches Each Year For 3 Years



All old branches gone;
Looks like a new,
young plant

Stumps completely
covered with new
growth



Trimmed and trained
every year to control
height and to allow for
growth of strong, new
shoots

Powdery mildew is the most common disease. It appears on foliage in late summer, and gives leaves a whitish, dusty appearance. You can control it by dusting with sulfur as soon as you notice the disease.

Oystershell scale and San Jose scale pierce the bark and suck sap from the plant, thus weakening flower-bearing stems. To control scale insects, use either carbaryl or malathion.

Lilac borers, as the name suggests, burrow into the wood of the plant, sometimes leaving small amounts of sawdust as evidence of their presence. Larvae are creamy-white caterpillars



PN-2357

Oystershell scale.



PN-2356

Powdery mildew.

about $\frac{3}{4}$ -inch long. These larvae usually concentrate on old branches, but they may also go after healthy new wood. They are especially damaging to grafted plants. A serious, uncontrolled infestation can affect the entire bush, causing leaves to wilt and stems to break off. You may have to remove seriously riddled branches. You can dig borers from the stems with a knife, or kill them by probing their burrows with a wire.

Borers can be controlled with endosulfan spray. Apply spray to the main trunk and branches in early May and repeat 2 or 3 times at 3-week intervals. For further information on pests of lilacs, contact your county Agricultural Extension Service.

USE OF PESTICIDES

This publication is intended for nationwide distribution. Pesticides are registered by the Environmental Protection Agency (EPA) for countrywide use unless otherwise indicated on the label.

The use of pesticides is governed by the provisions of the Federal Insecticide, Fungicide, and Rodenticide Act, as amended. This act is administered by EPA. According to the provisions of the act, "It shall be unlawful for any person to use any registered pesticide in a manner inconsistent with its labeling." (Section 12(a) (2) (G).)

EPA has interpreted this Section of the Act to require that the intended use of the pesticide must be on the label of the pesticide being used or covered by a Pesticide Enforcement Policy Statement (PEPS) issued by EPA.

The optimum use of pesticides, both as to rate and frequency, may vary in different sections of the country. Users of this publication may also wish to consult their Cooperative Extension Service, State Agricultural Experiment Stations, or County Extension Agents for information applicable to their localities.

The pesticides mentioned in this publication are available in several different formulations that contain varying amounts of active ingredient. Because of this difference, the rates given in this publication refer to the amount of active ingredient, unless otherwise indicated. Users are reminded to convert the rate in the publication to the strength of the pesticide actually being used. For example, 1 pound of active ingredient equals 2 pounds of a 50 percent formulation.

The user is cautioned to read and follow all directions and precautions given on the label of the pesticide formulation being used.

Federal and State regulations require registration numbers. Use only pesticides that carry one of these registration numbers.

USDA publications that contain suggestions for the use of pesticides are normally revised at 2-year intervals. If your copy is more than 2 years old, contact your Cooperative Extension Service to determine the latest pesticide recommendations.

The pesticides mentioned in this publication were federally registered for the use indicated as of the issue of this publication. The user is cautioned to determine the directions on the label or labeling prior to use of the pesticide.



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